A New Species of *Coryphella*

(Nudibranchia : Flabellinidae)

from Santa Barbara, California

BY

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(2 Plates)

On March 25, 1973, 2 nudibranch specimens were collected by David Laur while diving in 20m of water, 1.6 km off Arroyo Burro County Beach, Santa Barbara, California. At first they appeared to be color varieties of *Coryphella iodinea* (Cooper, 1863); however, upon closer examination they were found to have many unique traits. During the ensuing 2 years, several more individuals were found. Preliminary investigations carried out by Robert Cowen yielded promising results, thereby initiating the following study.

On April 16, 1975, 25 specimens were collected in 18 to 24m of water, 1.3 to 1.7km offshore Arroyo Burro County Beach by Craig Fusaro, Shane Anderson and the the senior author. Comparison of these specimens with *Coryphella iodinea* were made using starch-gel electrophoresis, scanning electron micrographs of the radula, and morphometric counts. From our results (given in the discussion) we propose the following taxon.

Flabellinidae Bergh, 1890

Coryphella Gray, 1850

Coryphella sabulicola Cowen & Laur, spec. nov.

Description: Body typical flabellinid shape, laterally compressed, elongate, tapering posteriorly. Body length, excluding oral tentacles, 46 to 55 mm, average length 50.5 mm. Length of oral tentacles 17 to 23 mm, average length 19.25 mm.

Body pale bluish-purple in color, foot bordered with white (Figure 1). Basal third of oral tentacles same color as body, distal two-thirds white. Base of cerata same as body color, remainder pale orange. Rhinophores red-brown in color.

Cerata in 8 to 10 groups per side, each arising from single ridge-like processes. Anterior-most group separated

Explanation of Figures 1, 6

Figure 1: *Coryphella sabulicola* Cowen & Laur, spec. nov.; photograph by Dave Laur

Figure 6: Example of starch-gel electrophoresis results. Starting point indicated by arrow. Cathode-attracted proteins (*e. g.*, present in *Coryphella iodinea*), are below the starting point. Odd numbered bands are *C. iodinea*, even numbered bands are *C. sabulicola*.

Figure 1

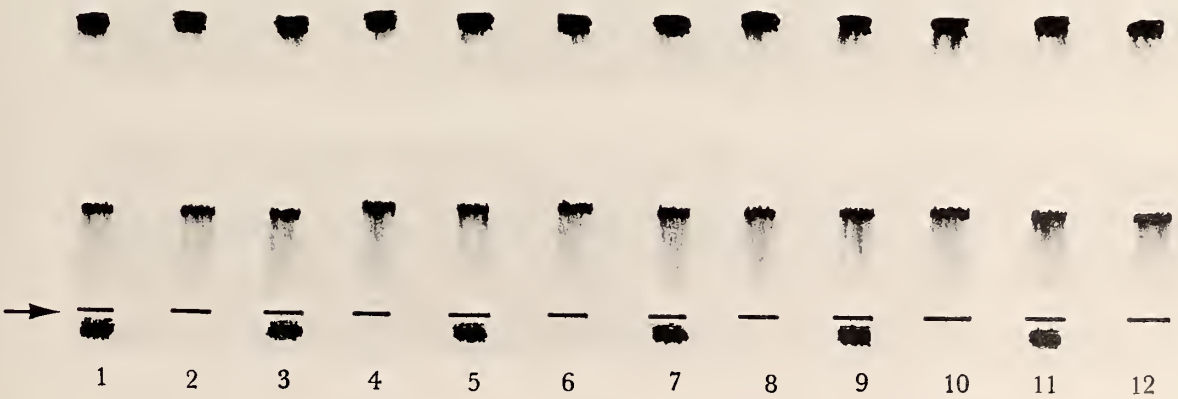

Figure 6